

REMARKS

In view of the Office Action of September 29, 2005, claims 1-7 stand rejected and are pending in this application. Independent claim 1 has been amended to more distinctly define the claimed invention. Claims 8-25, including independent claims 14 and 21, have further been added to claim other structures and methods of the multiple embodiments of the present invention.

Claims 1-3, and 5 stand rejected under 35 USC §102(b) as being anticipated by Nelson et al. (US 6,347,027). Claims 4, 6, and 7 stand rejected under 35 USC §103(a) as being unpatentable over Nelson et al. in view of one of Yamaguchi (US 6,492,891), Gul (US 6,555,746), or Rogers (US 3,574,559). The office action states that Nelson et al. discloses the recloser control apparatus of claim 1, whereas the additional features of claims 4, 6, and 7 are further described in one of Yamaguchi, Gul or Rogers.

Nevertheless, none of the prior art references describe a recloser control apparatus including a control interface system including a *convertible* charging system *adaptable* for producing control voltages for controlling trip and close apparatuses of various reclosers having different control voltage requirements. More specifically, there are a variety of reclosers which require a different set of, and arrangement of, output signals from the control apparatus and a different interface. As explained throughout Applicants' specification, one object of the present invention is to provide a recloser control apparatus which is adapted to be able to provide appropriate control signals to various reclosers.

Accordingly, Applicants' claimed invention includes a *convertible* charging system *adaptable* for producing control voltages for controlling a trip and close apparatus of various reclosers having different control voltage requirements. Independent claim 1

has been amended to more distinctly claim this feature, whereas newly added independent claim 14 includes this feature.

In order to illustrate Applicants' present invention, in one embodiment, a circuit is provided for producing a control voltage for a controlling trip and close apparatus for a particular recloser. In one particular embodiment as described in the specification and as set forth in claims 9 and 17, the control voltage produced by the circuit may be 12 volts. Moreover, as provided in all of the claims including those newly added, a convertible charging system is further provided. This convertible charging system is adaptable for producing control voltages for controlling trip and close apparatuses of various reclosers having different control voltage requirements.

In one particular embodiment, the trip and close apparatus is in the form of trip and close coils. Accordingly, a circuit is provided for producing control voltage for controlling the trip and close coils for a particular recloser. A convertible charging system is further provided for producing another control voltage for controlling trip and close coils for at least another recloser. This convertible charging system may include a capacitor charger wherein voltage signals from the circuit can either be used directly or indirectly by "dumping" energy into capacitors, which in turn dumps into the coils (See page 3, line 28 to page 4 line 3 and page 5 line 13 to 28). The control voltages produced by the capacitor charger of the convertible charging system may be greater than 12 volts, for example 24 volts, 53 volts or greater than 100 volts as described in the specification and as newly claimed herein.

In contrast, the prior art references only provide for one control voltage. Accordingly, the systems as described therein only provide for compatibility with only

one particular recloser. For example, Nelson describes algorithms which reconfigure various reclosing parameters, but not a recloser output voltage. In fact, the output voltage as described in Nelson is always fixed at +24V. These systems do not include a *convertible* charging system as disclosed by the Applicants. Accordingly, the prior art references are not adapted for producing control voltages for controlling trip and close apparatuses of various reclosers having different control voltage requirements.

Accordingly, Applicants respectfully request withdrawal of all rejections. In view of the foregoing, reconsideration and allowance of all claims are respectfully requested. The Examiner is invited to telephone the Applicants' undersigned attorney at (312) 236-8500 if any unresolved matters remain. The Commissioner is further authorized to charge any applicable fees for filing this amendment to deposit Account No. 50-1039.

Respectfully submitted,
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